

What is claimed is:

1. A semiconductor integrated circuit device,
comprising:

a semiconductor substrate;

5 a multilayer interconnection layer provided on said
semiconductor substrate;

an integrated circuit portion provided in a surface
of the semiconductor substrate and in the multilayer
interconnection layer;

10 a temperature monitor portion provided at a higher
level than the multilayer interconnection layer, the
temperature monitor portion having electric characteristics
that are changed in accordance with a temperature; and

a detector section, connected to the temperature
15 monitor portion, operable to detect the electric
characteristics of the temperature monitor portion to
measure the temperature.

2. The semiconductor integrated circuit device
according to claim 1, wherein

20 said integrated circuit portion is controlled based
on an output from the detector section.

3. The semiconductor integrated circuit device
according to claim 1, wherein

25 at least a part of the integrated circuit portion is
arranged directly below the temperature monitor portion.

4. The semiconductor integrated circuit device
according to claim 1, wherein

a plurality of said temperature monitor portions are

provided to detect the temperatures of a plurality of positions.

5 5. The semiconductor integrated circuit device according to claim 1, further comprising a bonding pad provided at the lower level than the temperature monitor portion.

6. The semiconductor integrated circuit device according to claim 1, wherein

10 the temperature monitor portion is formed of a material having a resistance that changes in accordance with the temperature, and the detector section detects the resistance of the material.

7. The semiconductor integrated circuit device according to claim 6, wherein

15 the material is a metal oxide.

8. The semiconductor integrated circuit device according to claim 7, wherein

the metal oxide is vanadium oxide.

20 9. The semiconductor integrated circuit device according to claim 6, wherein

the material is formed in a shape of sheet.